BEFORE THE

PUBLIC UTILITIES COMMISSION

OF THE STATE OF HAWAII

In the Matter of the Application of	)	
	)	
HAWAIIAN ELECTRIC COMPANY, INC.	)	DOCKET NO. 2008-0083
	)	
For Approval of Rate Increases and Revised Rate Schedules and Rules	)	
	)	

SUPPLEMENTAL TESTIMONY AND EXHIBITS OF MAURICE BRUBAKER

ON BEHALF OF

THE DEPARTMENT OF DEFENSE

AND

CERTIFICATE OF SERVICE

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ATTORNEY FOR
THE DEPARTMENT OF DEFENSE

BEFORE THE PUBLIC UTILITIES COMMISSION

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ON BEHALF OF

THE DEPARTMENT OF DEFENSE

COMES NOW, DEPARTMENT OF DEFENSE by and through its undersigned attorney and hereby submits Supplemental Testimony and Exhibits of Maurice Brubaker to Hawaiian Electric Company, Inc.

DATED: Honolulu, Hawaii, July 20, 2009

for JAMES N. McCORMICK
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ATTORNEY FOR
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In the Matter of the Application of	)	
HAWAIIAN ELECTRIC COMPANY, INC.	)	**Docket No. 2008-0083**
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Supplemental Testimony and Exhibits of

Maurice Brubaker

On behalf of

Department of Defense

July 20, 2009

BRUBAKER & ASSOCIATES, INC.
CHESTERFIELD, MO 63017

Supplemental Testimony of Maurice Brubaker

Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.

A. Maurice Brubaker. My business address is 16690 Swingley Ridge Road, Suite 140, Chesterfield, MO 63017.

Q. WHAT IS YOUR OCCUPATION?

A. I am a consultant in the field of public utility regulation and president of Brubaker & Associates, Inc. (BAI), energy, economic and regulatory consultants.

Q. ARE YOU THE SAME MAURICE BRUBAKER WHO PRESENTED DIRECT TESTIMONY IN THIS CASE ON APRIL 28, 2009?

A. Yes, I am.

Q. WHAT IS THE PURPOSE OF YOUR SUPPLEMENTAL TESTIMONY?

A. My supplemental testimony is presented to support the allocation of the revenue increase that is specified in the Settlement Agreement among the parties that has been filed with the Commission. More specifically, my supplemental testimony will address the issues noted by the Commission in Section III (h) at pages 15-16 of the Commission's Interim Decision and Order issued on July 2, 2009.

Q. DID YOU PARTICIPATE IN THE DISCUSSIONS WHICH LED TO THE PROVISIONS IN THE SETTLEMENT AGREEMENT THAT ADDRESSED THE ALLOCATION OF THE PERMANENT REVENUE INCREASE AMONG RATE SCHEDULES?

A. Yes, I did.

Q. PLEASE EXPLAIN TO THE COMMISSION WHY YOU SUPPORT THE SETTLEMENT ALLOCATION.

A I support the settlement revenue allocation primarily because it moves the charges to the various customer classes closer to the cost of serving those customer classes.

Q. WHY IS IT IMPORTANT TO MOVE CLOSER TO COST OF SERVICE?

A In responding, I would like to refer to my April 28, 2009 testimony at pages 6-7. For the convenience of the Commission and the parties, it is included here:

> **Q. PLEASE BRIEFLY SUMMARIZE WHY YOU BELIEVE IT IS IMPORTANT THAT THE ALLOCATION OF REVENUE REQUIREMENTS TO CLASSES AND THE DESIGN OF RATES BE BASED ON COST.**
>
> A. The use of cost as a basis for allocating the total revenue requirement among classes is critical for three reasons. First, it is the only objective definition of basic fairness. The premise is that each customer should pay costs associated with its consumption, but not that of others. Because designing individual rate schedules for each customer is not practical, it is necessary to group customers into classes. Therefore, the first step is to ensure that each customer pays only costs associated with its own purchases and that the revenue requirement of the class follows this same principle.
>
> Second, if the allocation of revenues to classes departs from cost, efficiency suffers. Class revenues are used as the basis for designing the specific rates that provide critical information to customers about the cost consequences of their purchase decisions. If these signals are distorted because the rates are designed on class revenues that are not closely

related to class costs, customers will make inefficient choices concerning their use of resources (not just electricity, but competing energy sources such as gaseous fuels, wind and solar and energy efficiency options). The resulting inefficient use of resources is a bad outcome for the customer, the utility, the state of Hawaii and society in general.

Third, an allocation of revenues to classes that is not based on cost will result in revenue instability for the utility. The utility will only recover the test year revenue requirement from a class if the actual billing units happen to exactly equal those estimated for the test year. If class revenues and rates track costs, then changes in class revenues and costs will move in step when actual consumption differs from test year consumption, and the utility will remain stable. If, however, the revenue requirement of a particular class is less than cost and that class grows relative to the test year assumptions, the result will be a revenue shortfall for the utility, which will lead to additional rate case filings and potentially higher rates for all customers.

For many of the same reasons, the design of the customer, demand and energy charges within each tariff should also be guided by cost of service. This is appropriate not only to charge customers the appropriate share of costs, but also to give customers the proper price signal so they can make informed and rational decisions.

Q. HOW DO YOU MEASURE WHETHER A CLASS IS PRICED AT A LEVEL APPROXIMATELY EQUAL TO ITS COST?

A. This is accomplished by performing a class cost of service study which functionalizes, classifies and, then using appropriate factors, allocates each element of the utility's revenue requirement to the individual rate schedules.

HECO presented two different cost of service studies. The difference between the two was only with respect to the allocation of certain elements of the distribution system. These were referred to as the "with minimum distribution system" and "without minimum distribution system" studies.

Q. HAVE YOU PREPARED COMPARISONS OF THE RELATIONSHIPS BETWEEN RATES AND COSTS USING BOTH OF THESE STUDIES?

A. Yes, I have. Exhibit DOD-309, attached to this testimony presents the results under the study with the minimum distribution system, which is the study version that I think is most appropriate.

Q. PLEASE EXPLAIN THIS EXHIBIT.

A. Exhibit DOD-309, Columns 1 through 3, present measurements of the closeness of the rates to cost of service under HECO's currently effective rates. (The currently effective rates are the revised interim rates granted in June 2008 in Docket No. 2006-0386.) Column 1 shows the rate of return, Column 2 shows the index or relative rate of return and Column 3 shows the dollar subsidy. Columns 4 through 6 show the same information with HECO's initially proposed equal percentage across-the-board distribution of its requested revenue increase. Columns 7, 8 and 9 show the same information under the distribution of the increase calculated in accordance with the Settlement Agreement.

Q. HOW DO THE STATISTICS ON THIS EXHIBIT MEASURE CLOSENESS TO COST OF SERVICE?

A. There are two measures that are generally relied upon to measure closeness to cost of service. The first is the index. An index equal to 100 means that the rate of return produced by a class is equal to the system average rate of return, and as a result the class is at cost of service. Similarly, the subsidy number measures the dollar distance between the revenues paid by a class and the revenues that it would pay if it were returning exactly the system average rate of return. As indicated in the

footnote, a negative subsidy means a class is producing revenues less than its cost of service, while a positive value means that it is producing revenues in excess of its cost of service.

If a class were at cost of service, the index would be 100 and the subsidy would be zero.

Q. PLEASE EXPLAIN THE INTERPRETATION OF THE INDEX OF RETURN VALUES SHOWN ON EXHIBIT DOD-309.

A. The indexes of return under the settlement rates for Schedules R, G, DS, P and F are all closer to 100 than is the case under either the currently effective rates or the proposed rates. For Schedule J, there is little difference.

Q. WHAT CAN BE CONCLUDED FROM A REVIEW OF THE SUBSIDIES?

A. Comparing currently effective rates with settlement rates, the subsidies are smaller at settlement rates for Schedules G, DS, and F. Comparing settlement rates to proposed rates, the subsidies are smaller under the settlement rates for Schedules R, G, DS, P and F.

Q. WHAT IS SHOWN ON EXHIBIT DOD-310?

A Exhibit DOD-310 shows the same information, but using the study without the minimum distribution system.

Q. WHAT DO YOU CONCLUDE FROM COMPARING THE INDEXES OF RETURN ON EXHIBIT DOD-310?

A. As measured by the indexes of return, all rate schedules are closer to cost of service under the settlement rates in comparison to the currently effective rates or the proposed rates.

Q. WHAT DO YOU CONCLUDE BASED ON A COMPARISON OF THE SUBSIDIES?

A. As compared to currently effective rates, the subsidies under the settlement rates are smaller for Schedules G, J, DS and P. As compared to proposed rates, the subsidies under the settlement rates are smaller for all schedules.

Q. WHAT IS YOUR OVERALL CONCLUSION FROM A REVIEW OF THIS INFORMATION?

A. My overall conclusion is that the settlement rates are far superior to either currently effective rates or to proposed rates in terms of the closeness of rate schedules to cost of service.

I recommend that the Commission find the settlement on distribution of the permanent increase to be reasonable and appropriate, and adopt that distribution in its order.

Q. DOES THIS CONCLUDE YOUR SUPPLEMENTAL TESTIMONY?

A. Yes, it does.

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HAWAIIAN ELECTRIC COMPANY, INC.
DOCKET NO. 2008-0083, TEST YEAR 2009

Summary of Class Rates of Return, Indexes and Subsidies at Currently Effective, Proposed & Settlement Rates
With Minimum Distribution System

		Currently Effective Rates			Proposed Rates			Settlement Rates		
Line	Rate Class	Rate of Return (1)	Index[1] (2)	Subsidy[2] (000) (3)	Rate of Return (4)	Index[1] (5)	Subsidy[2] (000) (6)	Rate of Return (7)	Index[1] (8)	Subsidy[2] (000) (9)
1	Schedule R	2.42%	50	$(24,469.9)	5.43%	62	$(33,883.9)	5.99%	68	$(28,290.2)
2	Schedule G	8.23%	169	6,836.1	11.18%	127	4,809.9	10.44%	119	3,312.8
3	Schedule J	4.57%	94	(1,980.6)	8.55%	97	(1,782.7)	9.55%	108	5,076.0
4	Schedule DS	6.78%	140	4,061.8	13.41%	152	9,711.8	10.14%	115	2,804.9
5	Schedule P	8.69%	179	15,870.3	14.01%	159	21,555.5	13.00%	148	17,378.7
6	Schedule F	2.79%	57	(317.7)	6.13%	70	(410.6)	6.97%	79	(282.2)
7	Total	4.86%	100	$ 0.0	8.81%	100	$ (0.0)	8.81%	100	$ 0.0

Notes:

[1] An index below 100 means a class is below the system rate of return and would require an above average percent increase. An index above 100 means a class is above the system rate of return and would require a below average percent increase.

[2] A negative number indicates the amount of subsidy a class is receiving.
A positive number indicates the amount of subsidy a class is providing.

HAWAIIAN ELECTRIC COMPANY, INC.
DOCKET NO. 2008-0083, TEST YEAR 2009

Summary of Class Rates of Return, Indexes and Subsidies at Currently Effective, Proposed & Settlement Rates
Without Minimum Distribution System

		Currently Effective Rates			Proposed Rates			Settlement Rates		
Line	Rate Class	Rate of Return (1)	Index[1] (2)	Subsidy[2] (000) (3)	Rate of Return (4)	Index[1] (5)	Subsidy[2] (000) (6)	Rate of Return (7)	Index[1] (8)	Subsidy[2] (000) (9)
1	Schedule R	3.97%	82	$ (8,476.2)	7.14%	81	$(15,860.4)	7.73%	88	$(10,280.7)
2	Schedule G	13.77%	283	13,702.5	17.67%	201	13,620.5	16.69%	190	12,120.3
3	Schedule J	2.82%	58	(15,185.7)	6.50%	74	(17,191.2)	7.42%	84	(10,306.4)
4	Schedule DS	6.78%	140	4,061.8	13.41%	152	9,714.9	10.14%	115	2,805.0
5	Schedule P	6.27%	129	6,457.5	11.08%	126	10,405.8	10.16%	115	6,223.7
6	Schedule F	1.42%	29	(559.9)	4.57%	52	(689.5)	5.36%	61	(561.9)
7	Total	4.86%	100	$ 0.0	8.81%	100	$ 0.0	8.81%	100	$ 0.0

Notes:

[1] An index below 100 means a class is below the system rate of return and would require an above average percent increase. An index above 100 means a class is above the system rate of return and would require a below average percent increase.

[2] A negative number indicates the amount of subsidy a class is receiving.
A positive number indicates the amount of subsidy a class is providing.

CERTIFICATE OF SERVICE

I hereby certify that one copy of the foregoing document was duly served upon the following parties, by personal service, hand-delivery, and/or U.S. mail, postage prepaid, and properly addressed pursuant to HAR sec. 6-61-21(d).

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DATED: July 20, 2009, Honolulu, Hawaii

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